WHAT IS CLAIMED IS:

1. A system for data transformation, comprising:

one or more read spokes, each read spoke configured to connect to one or more data sources, wherein each data source has one or more data structures referred to collectively as source structures;

one or more modeless write spokes, each modeless write spoke configured to connect to one or more data targets, wherein each data target has one or more data structures referred to collectively as target structures; and

a transformation engine operatively coupled to the one or more read spokes for retrieving data from the one or more data sources, and coupled to the one or more modeless write spokes for storing data in the one or more data targets, comprising:

a data transformation map that comprises one or more mappings that relates one or more source structures to one or more target structures;

an event list, comprising one or more event actions, each with a corresponding triggering event,

wherein the transformation engine is configured to

iterate through the data sources and detect occurrence of triggering events,

in response to the detection of triggering events, execute the respective one or more event actions from the event action list.

2. The system of claim 1, wherein the transformation engine further comprises a query language preprocessor operable to review the data transformation map and evaluate embedded expressions in the one or more mappings.

3. The system of claim 1, wherein at least one of the event actions, referred to as a transformation event action, comprises:

retrieving at least one source structure from the data source,

1   transforming said at least one source structure, referred to as transformed source

2   data, and

3   storing said transformed source data in one or more target structures; and

4   wherein said transformation engine is operable, in response to a transformation

5   event action, transform data specified by said transformation event action

6   in a manner described in the data transformation map.

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8   4.   The system of claim 1, further comprising a user interface configured to allow a

9   user to define the one or more data sources, and to define data structures in each of the

10   one or more data sources.

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12   5.   The system of claim 1, further comprising a user interface configured to allow a

13   user to define the one or more data targets, and to define data structures in each of the one

14   or more data targets.

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16   6.   The system of claim 1, further comprising a user interface configured to allow a

17   user to define the relationship between one or more data sources and one or more data

18   targets.

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20   7.   The system of claim 6, further comprising the user interface allowing the user to

21   relate source structures to target data structures.

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23   8.   The system of claim 7, wherein the user interface is further comprises a display

24   configured to graphically depict the relation between the source structures and the target

25   structures specified in the transformation map.

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27   9.   The system of claim 6, wherein the user interface is further configured to define

28   the relationship between one or more data sources and one or more data targets as a

29   logical expression.

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1   10.   The system of claim 6, wherein the user interface is further configured to define
2   the relationship between one or more data sources and one or more data targets as a
3   numeric expression.

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5   11.   The system of claim 1, wherein the transformation engine further comprises a
6   display configured to show the contents of the data source and the contents of data
7   structures in the data target.

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9   12.   The system of claim 1, wherein the associated triggering event is a generic source
10   event.

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12   13.   The system of claim 1, wherein the associated triggering event is a generic target
13   event.

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15   14.   The system of claim 1, wherein the associated triggering event is a generic
16   transformation event.

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18   15.   The system of claim 1, wherein the associated triggering event is a specific source
19   record event.

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21   16.   The system of claim 1, wherein the transformation engine is further configured to
22   filter the data retrieved from the data source, the data passing the filter referred to as
23   filtered source data, and is further configured to iterate through only the filtered source
24   data.

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26   17.   The system of claim 16, wherein the transformation engine is further configured
27   to filter the data using predetermined sampling parameters governing a range or sample.

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29   18.   The system of claim 16, wherein the transformation engine is further configured
30   to filter the data using a predetermined logical extraction criteria.

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19.   The system of claim 1, wherein the read spokes may connect to the one or more data sources by utilizing a raw sequential mode wherein an intuitive visual parser reconstructs record layouts.

20.   The system of claim 1, wherein the read spokes may connect to the one or more data sources by utilizing a compatible physical file format allowing the transformation engine to physically read from the one or more data sources using the native internal storage format.